

TAX INCENTIVES

Summary of Relevant Literature¹

Overview

Tax incentives have been proposed to increase access to health insurance among the working uninsured. Tax incentives are structured to reduce the cost of purchasing health insurance by reducing an individual's (or employer's) tax burden. Incentives take the form of either a tax credit or a tax deduction. *Tax credits* are amounts subtracted from the income tax liability itself, and may be refundable or nonrefundable. With a refundable credit, taxpayers whose credits exceed their income tax liabilities receive the difference; a nonrefundable credit does not provide refunds to taxpayers. *Tax deductions* reduce a taxpayer's adjusted gross income or taxable income.

The purpose of this report is twofold: to summarize the options offered across the various proposals, and to present literature, where available, that addresses the impact of these various options. Tax incentives are viewed by many politicians as an attractive solution to addressing the problem of the uninsured, yet large-scale tax incentives for low-income individuals have not been implemented previously, and so there is little experience-based data available for policymakers to evaluate the options. However, several studies have examined questions that are directly relevant to tax incentives and other subsidies; these studies frequently use simulations involving existing data, such as the Survey of Income and Program Participation (SIPP), the National Medical Care Expenditure Survey, Current Population Survey (CPS), as well as others.

Summary of Tax Incentive Proposals

Several tax incentive proposals have been offered as alternative routes to increasing access to health insurance. The specific details of these proposals are summarized in a separate document found at the State Planning Grant website.² The majority of the proposals were commissioned as part of the Commonwealth Fund's "Strategies to Expand Health Insurance for Working Americans" series (www.cmwf.org). In addition to a "basic" health insurance tax credit proposal,³ tax credits could be used to buy into Medicaid or CHIP programs⁴ or to the Federal Employees Health Benefits Program,⁵ to cover employee⁶ or employer⁷ contributions to employer-based coverage, or to buy coverage through purchasing pools.⁸ In addition to the use of tax incentives *per se*, two proposals included subsidies to assist with insurance coverage during employment

¹ This report was prepared for the Illinois Department of Insurance State Planning Grant by Jane L. Swanson, Southern Illinois University at Carbondale.

² Summaries are found at www.ins.state.il.us/spg/State-Only_Tax_Incentives.htm.

³ Zelenak, 2000.

⁴ Rosenbaum, Borzi, & Smith, 2000; Weil, 2000.

⁵ Fuchs, 2000.

⁶ Merlis, 2000.

⁷ Meyer & Wicks, 2000.

⁸ Curtis, Neuschler, & Forland, 2000.

transitions⁹ and designed to target the 55-64 year-old pre-Medicare population.¹⁰ Additional papers in the Commonwealth Fund series discussed the use of tax incentives in individual health insurance markets¹¹ and summarized the cost models for each of the options.¹²

In addition to the Commonwealth Fund papers, other authors have supported the idea of linking health insurance tax credits to purchasing pools,¹³ or have proposed alternate tax credit schemes, including a “flexible benefits tax credit” which could be used for health insurance or for educational or retirement savings, depending on family circumstances.¹⁴

Summary and Evaluation of Options

One of the appealing features of using the tax system to subsidize health insurance coverage is that it provides financial benefits to individuals that are now enjoyed only by people who are self-employed or who have employer-sponsored coverage.¹⁵ Currently, there are four ways in which health insurance is subsidized through the existing tax code:¹⁶ (1) employers’ payments toward health insurance are excluded from employees’ taxable income, (2) taxpayers may deduct health care expenditures in excess of 7.5% of their income, (3) taxpayers may contribute pre-tax dollars to health care spending (if their group health insurance qualifies under Section 125 of the IRS code), and (4) self-employed individuals can deduct 60% of their insurance expenditures (which will increase to 100% by 2003). People who are not offered employer-based insurance, however, remain outside of the current tax subsidy scheme.¹⁷ Further, much insurance spending occurs through nonsubsidized employee contributions.

A number of policy options are subsumed in the tax incentive proposals: tax credits vs. tax deductions, refundable vs. nonrefundable credits, the optimal amount of tax subsidies, populations targeted by tax incentives, prospective vs. retrospective subsidies, application of tax credits, look-back, crowd-out, buying the base, and other factors related to take-up of subsidies. These options are summarized and evaluated in the following sections.

Tax Credits vs. Tax Deductions

The vast majority of recent proposals focus on tax credits rather than tax deductions. Tax credits are amounts subtracted from the income tax liability itself, whereas tax deductions reduce a taxpayer’s adjusted gross income or taxable income. Proponents of tax credits or deductions argue that their prime advantage is simplicity: they do not require any new

⁹ Gruber, 2000c.

¹⁰ Short, Shea, & Powell, 2000.

¹¹ Swartz, 2000.

¹² Glied & Ferry, 2000.

¹³ Trude, & Ginsburg, 2001; Center for Studying Health System Change, 2001.

¹⁴ Etheredge, 2001.

¹⁵ Gruber & Levitt, 2001.

¹⁶ Gruber, 2000b.

¹⁷ Approximately 16% of nonelderly Americans are not eligible for these forms of tax subsidy at some point (Gruber, 2000b).

administrative structures, and there are procedural precedents for tax credits and deductions.¹⁸

The primary criticism of tax credits and tax deductions is that many poor uninsured do not have sufficient tax liability to make either mechanism useful. For individuals who do not pay taxes (approximately 45% of the uninsured), neither tax deductions nor tax credits would provide any benefit. For those who do pay taxes, tax credits and deductions would provide somewhat different benefits: tax credits directly reduce whatever tax liability exists for taxpayers, resulting in a decreased tax payment or an increased tax refund, whereas tax deductions indirectly influence tax liability by reducing the amount of taxable income. Given that the vast majority of uninsured individuals (90%) are in the lowest tax bracket, deductions would offer no more than a 15% subsidy of their premium costs.¹⁹

Direct evidence related to tax credits and tax deductions comes from a set of simulations (hereafter referred to as the “Gruber simulations”) developed to the effects of various options on coverage and costs.²⁰ The base model used in the simulations was a refundable tax credit of \$1,000 for individuals and \$2,000 for families, to be used for purchasing non-group insurance. The deduction included in the simulation model was an unlimited deduction for any and all expenses related to health insurance; other options included refundable and nonrefundable tax credits, extending the tax credits to all insurance expenditures, restricting eligibility only to those who were not offered employer-based coverage, and varying the dollar amount of the tax credits.

Results of these simulations indicated that using tax credits rather than tax deductions would entail substantially higher costs, but also would reach many more uninsured individuals. Simulations of participation indicated that tax credits would result in substantially greater net reductions in the number of uninsured individuals than would tax deductions (4 million with refundable credits vs. 250,000 with deductions).²¹ Simulated costs were dramatically lower with deductions than any of the other evaluated options (\$870 million per year, vs. options that ranged up to 62 billion per year). Deductions fared particularly poorly in analyses of “distributional impacts,” in terms of the amount of federal spending directed at individuals at various levels of income: less than 30% of spending with deductions would benefit those with incomes below 200% FPL, compared to 56% with refundable tax credits.²²

¹⁸ Pauly & Herring, 2001.

¹⁹ Gruber, 2000b; Center on Budget and Policy Priorities, 2000. According to the latter source, health insurance deductions would be worth more than twice as much to individuals in the top tax brackets than to moderate- and middle-income families in the lowest tax bracket.

²⁰ Gruber, 2000a; Gruber, 2000b; Gruber & Levitt, 2001. Detailed information regarding this simulation may be found in the appendix accompanying this report. The three references listed here describe the same analysis published in three separate venues, with differing levels of technical information. For simplicity, subsequent citations will refer to Gruber (2000b).

²¹ These estimates represent net reductions in the number of uninsured, and include those who were previously uninsured, covered by non-group insurance, covered by employer-based insurance, and covered by Medicaid. See the appendix for additional details.

²² Gruber, 2000b.

Refundable vs. Nonrefundable Tax Credits

With a refundable credit, taxpayers whose credits exceed their income tax liabilities receive the difference; a nonrefundable credit does not provide refunds to taxpayers. Proponents of refundable tax credits argue that most low-income uninsured individuals do not have sufficient income to incur much tax liability, therefore, nonrefundable tax credits have little value.²³

The “basic” proposal in the Commonwealth Fund series used refundable tax credits.²⁴ An additional proposal for “flexible benefits tax credits” made the tax credit refundable if individuals had already enrolled in or purchased health insurance for themselves and their children.²⁵

Estimates of coverage and costs in the Gruber simulations indicated that refundable tax credits significantly increased coverage over nonrefundable credits: fewer than 2 million would gain coverage with nonrefundable credits, versus 4 million with refundable credits. Nonrefundable credits produced the worst distributional impact of any of the evaluated options, with only 23% of the spending would go to those with incomes below 200% FPL (vs. 56% with refundable credits). Not surprisingly, the costs of refundable credits are substantially higher than with nonrefundable (13.3 billion per year vs. 7 billion).²⁶

Amount of Tax Subsidies

Various amounts of tax credits have been proposed, ranging from \$1,000 to \$2,000 per individual,²⁷ and \$2,000 to \$4,000 per family. Most proposals include reduction of the tax credit based on the amount of income above some defined percentage of the federal poverty limit (Zelenak, 2000). Credits also would be adjusted by age of the recipient since health insurance policies are more expensive for older individuals.²⁸ In addition, one proposal adjusted tax credits by sex (in combination with age).²⁹ Adjustments by age and sex may help to minimize crowd-out, because the adjustments would remove some of the incentive for younger (and presumably healthier) workers to leave their current employer-based coverage.

²³ 45% of low-income uninsured do not pay taxes; 60% of low-income uninsured have tax liabilities under \$1,000 (Gruber, 2000b).

²⁴ Zelenak, 2000.

²⁵ Etheredge (2001).

²⁶ With nonrefundable credits, only 4.3% of currently uninsured would gain coverage, compared to 11.1% with refundable credits (Gruber, 2000b).

²⁷ Etheredge (2000) proposed \$1,000-\$1,500 and Zelenak, (2000) proposed \$2,000 for individuals. The amounts included by Gruber (2000b) in his “base” proposal were \$1,000 per individual and \$2,000 per family; he also evaluated the effects of halving and doubling the amount of the tax credits.

²⁸ Zelenak (2000). In addition, Curtis *et al.* (2000) proposed that the premiums charged by purchasing pools (linked to tax credits) would vary by age of the enrollee.

²⁹ Non-group health insurance premiums are higher for women than for men as long during the childbearing years, after which premiums are lower for women than for men (Zelenak, 2000). Although there is no precedent for adjusting tax credits by sex, Zelenak argued that it is necessary to be accurate and fair, and to provide sufficient subsidy for the purchase of insurance.

Authors of these proposals typically argue that the amount of the tax credit would cover a “basic insurance plan” in the non-group market. However, recent evidence suggests that even perfectly healthy individuals could anticipate paying more for a basic policy: the average standard rate for seven hypothetical applicants under conditions of perfect health would have been nearly \$3,000 per year. Moreover, the presence of health problems, ranging from quite minor to life-threatening, would increase the premiums to an average of \$4,000 per year, decrease the coverage offered, and, in the more severe cases, lead to an inability to obtain insurance in the non-group market.³⁰

The Gruber simulations began with tax credits of \$1,000 per individual and \$2,000 per family, and also evaluated the impact of halving and doubling these amounts. As would be expected, smaller credits cover approximately half the number of people at a third of the cost, compared to the base amount; larger credits cover nearly twice as many people, at three times the cost, compared to the base amount. Smaller credits targeted spending more directly to the poor: more than 60% would go to those with incomes below 200% FPL, vs. less than half with the larger credits.³¹

Populations Targeted by Tax Incentives

Tax incentive proposals also vary in terms of the targeted population and eligibility. Under some proposals, tax credits would be available only to those who do not currently have employer-based coverage (whether or not such coverage was offered by the employer), whereas others would make the tax credits available to anyone. Further, some proposals would make the credit/deduction applicable to an employee’s share of premiums for employer-based policies.

The Gruber simulations included two analyses relevant to the targeting of tax credits. First, the simulations included an option in which tax credits could be used for any health insurance expenditure, including employers’ contribution to premiums. This option produced the greatest reduction in the number of uninsured (12.4 million), and the highest cost estimates (\$62.2 billion per year). The distributional impact is not as attractive as the base policy (which could be used only for purchasing non-group insurance): only 36% of spending would occur at incomes below 200% FPL.

The substantial impact of this option, in terms of both costs and coverage, is due to two factors. More than 70% of individuals with employer-based insurance pay some or all of their premiums, which would be paid by the government. On the other hand, almost 40% of the uninsured are offered but decline group health insurance, and a subsidy could make it free or greatly reduce the cost, potentially resulting in a large number of newly insured. This option represents a broad expansion, with take-up estimates of 127 million, most of

³⁰ Pollitz, Sorian, & Thomas, 2001. The yearly quoted premiums ranged from \$408 to \$30,038 across five individuals. Of 420 hypothetical applications, only 10% resulted in “clean” offers (policies with standard rates); 37% were rejected (including 60 applications that were rejected for an HIV-positive individual, considered an uninsurable case). Of the 63% of applications that were accepted, the majority (53%) included benefit restrictions and/or premium surcharges.

³¹ Gruber, 2000b.

whom already have employment-based insurance and would use the tax credit to pay their portion of the premium.³²

The second relevant analysis in the Gruber simulations examined limiting tax credits to individuals who are not offered employment-based coverage. Although there are difficult administrative issues with implementing and enforcing this option,³³ it does provide a mechanism for better targeting subsidies to the currently uninsured. The simulations revealed that yearly costs would be much lower than without such a limit (\$6.2 billion vs. 13.3 billion), but the number of newly insured would be lower as well (2.1 million vs. 4.7 million). This option is more attractive in terms of its distributional impact: more than two-thirds (69%) of the benefits would go to individuals with incomes below 200% FPL (vs. 56%).

Prospective vs. Retrospective Subsidies

Tax credit proposals typically include a provision to receive the credit in advance, with year-end reconciliation.³⁴ This option is deemed necessary because of the difficulty experienced by low-income individuals in paying for health coverage; advance payment would be necessary to ensure adequate participation in the program. However, changes in income during the year might make year-end reconciliation burdensome; one proposal suggested that only 60% of the tax credit be available in advance, with the remainder to be paid at the year-end reconciliation. Paying only 60% of the tax credit in advance also would help avoid the burden at reconciliation if a worker's financial circumstances change during the year. Most workers would then get a year-end refund. However, workers still would need to pay significant amounts of their own money in advance, which could depress participation rates. Using payroll deductions to cover workers' portion of premiums may help encourage participation despite requiring "up-front" money. Another possible strategy is that insurers might choose to lend workers the remaining 40%, due when the rest of the credit received at year's end..³⁵

There is precedent for using an advanced payment option, as available through the Earned Income Tax Credit (EITC).³⁶ However, despite the obvious advantages of receiving advance EITC payments, the rate of usage is extremely low (only 1-2% of eligible participants). Using an advanced payment option as a means of increasing participation in health insurance tax credits would require heavy promotional and marketing efforts.

A major disadvantage of using retrospective subsidies, even with advance payments, is that it requires people to buy insurance without knowing what they will be paying for it. The net cost of an individual's participation will not be certain until his or her actual

³² Gruber (2000b) concluded that this option was too inefficient because the large proportion of participants-up would already be insured. This issue will be discussed later in this report as "buying the base" (Zelenak, 2000).

³³ Meyer, Silow-Carroll, & Wicks, 1999.

³⁴ Curtis *et al.*, 2000; Zelenak, 2000.

³⁵ Zelenak (2000).

³⁶ Short, 2000; Zelenak, 2000

income is determined and the subsidy computed (or reconciled) at year-end. Such uncertainty also is likely to decrease participation.³⁷

Using an advance payment system with a required reconciliation at the end of each year leads to a conflict between the two goals of accuracy and participation. A simulation analysis of longitudinal Survey of Income and Program Participation (SIPP) data examined the extent of errors in allocating funds based on prospective vs. retrospective payment. Results indicated that prospective payment is slightly biased toward overpayment of subsidies; in other words, the simulation lent “credence to the suspicion that prospective subsidies are biased toward paying too many people too much money.”³⁸

The SIPP data also were used to examine the effects of varying the length of time used for certifying income. Certifying enrollment for longer periods (up to one year) has three advantages. First, longer periods will provide greater stability of enrollment in health plans, which may lead to improved efficiency and quality of care. Second, longer certification periods may help control adverse selection by discouraging individuals from opting in and out of coverage. Finally, longer periods should reduce administrative burden and cost, both for the government and for individual enrollees, which is likely to increase participation.³⁹ In addition, the simulations suggested that longer periods produced some cost savings, primarily by putting less weight on short-term fluctuations in income.

In the simulation with a three-month certification interval indicated that 94.6% of individuals who were truly eligible (based on retrospective reconciliation) were correctly identified at the start of the year; thus only 5.4% were incorrect (false negatives). Of subsidies offered at the beginning of the year, 8.0% would have been issued to those who would later be ruled ineligible (false positives). The two types of misclassification errors involved 10.1% of the population (6.8 million individuals). Increasing the certification interval to 12 months had little impact on the total number of errors, whereas increasing the interval to 6 months decreased the number of errors slightly.⁴⁰

Regarding participation rates, the simulation suggested that up to 73% of eligible individuals would participate with prospective payments, compared to 69% with retrospective reconciliation. Overpayments amounted to an estimated 5-10% of subsidy costs. However, prospective payments encouraged participation, which may be viewed as the primary virtue of a prospective system.⁴¹

Application of Tax Credits

³⁷ Short, 2000. Uncertainty about future income may be one reason that low-income families do not avail themselves of the advance payment option of the EITC (McCubbin, 1999, as reported in Short, 2000).

³⁸ Short, 2000.

³⁹ Ibid.

⁴⁰ For the 12-month interval, false positives increased to 6.4% and false negatives decreased to 6.9%, with an overall error rate of 9.9%. For the six-month interval, false positives increased slightly to 5.6% and false negatives decreased to 6.3%, with an overall error rate of 8.9%. All of these estimates were calculated under the assumption of full participation. Selective participation exacerbates the bias toward overpayment of subsidies, although not substantially. Data were excerpted from Short (2000).

⁴¹ Short, 2000.

Most proposals entail using the non-group market; in other words, tax credits (or deductions) would be available for purchase of a private individual or family health insurance policy. However, some proposals tie tax credits to the use of purchasing pools, or may be used to cover employees' share of employer-based insurance coverage.

The non-group (or "individual") health insurance market presents a set of challenges to implementing tax incentives or subsidies. Perhaps the most salient issue is that of adverse selection. Insurers respond to the threat of adverse selection by developing market niche strategies to screen out high risks, or by denying coverage to individuals with any hint of risk.⁴²

Some analysts argue that individual health insurance markets are "dysfunctional," characterized by high turnover, high average medical costs, risk segmentation, aggressive underwriting, and competition among insurers based on risk selection. These factors lead to high overhead costs and large variation in premiums based on health status, making it highly unlikely that using tax credits to purchase coverage would be a cost-effective means of covering uninsured workers.⁴³

Purchasing pools have been suggested as a way to "harness" tax credits.⁴⁴ Many individuals will find non-group markets too expensive, or cannot obtain coverage through non-group markets, particularly individuals who are chronically ill or have preexisting conditions.⁴⁵ From the consumer's point of view, the non-group insurance market is complex, including an overwhelming array of products. On the other hand, private purchasing pools for tax-credit recipients could provide a solution to these problems, namely, by offering individual purchasers many of the advantages of group market, such as lower administrative costs, no health rating, and professional expertise related to purchasing. Purchasing pools are estimated to cost 5-10% less than private non-group insurance. In addition, purchasing pools will allow individuals choice among health plans.⁴⁶

In proposals linking tax credits to purchasing pools, all tax-credit recipients would be required to purchase coverage through private purchasing pools. This requirement is necessary to ensure that pools become sufficiently large to operate efficiently and offer the advantages of group purchasing. Explicitly linking tax credits and purchasing pools also will minimize risk segmentation: preventing individuals from apply their tax credits anywhere they want will circumvent the possibility that purchasing pools would be left with only the high-risk, high-cost population.

As noted in the literature review regarding purchasing pools,⁴⁷ previous purchasing pools have not been successful. However, many of the reasons underlying their poor

⁴² Pollitz *et al.*, 2001; Swartz, 2000

⁴³ Curtis *et al.*, 2000; Swartz, 2000.

⁴⁴ Curtis *et al.*, 2000; Trude & Ginsburg, 2001.

⁴⁵ Pauly & Herring, 2001; Pauly, Percy, & Herring, 1999; Pollitz *et al.*, 2001

⁴⁶ Curtis *et al.*, 2000; Trude & Ginsburg, 2001.

⁴⁷ For more information on purchasing pools, see the reports on the State Planning Grant website (www.ins.state.il.us/spg).

performance have been identified, and new proposals have taken them into account.⁴⁸ These new purchasing pools should be more attractive to insurers because the pools would be the only vehicle available for using the health insurance tax credit. Pools would therefore be much larger, more cohesive and more stable than previous purchasing pools. Risk selection should be less frequent than in the individual market because people will join for reasons not related to their health status.

An alternate method of using tax credits is to link them to employer-based insurance coverage, as part of a broader program of tax credits for low-income workers. One proposal included an “employer-sponsored insurance credit” (ESIC) in conjunction with Medicaid or CHIP. Employees without access to employer-based coverage would obtain credits to purchase insurance in the non-group market; those with access to coverage would use the ESIC to subsidize their contribution to premium costs.⁴⁹

Another proposed option is a “flexible benefits tax credit” plan with successive steps. First, if workers do not have health insurance for their children, they either must enroll in Medicaid or SCHIP, or use the tax credits to purchase private coverage. Second, if workers do not have basic health insurance for themselves, they would be expected to use tax credits to buy coverage. Third, if workers decline the purchase of health insurance, the default option would be to transfer their tax credits to state government for safety-net coverage. Workers who already had health insurance coverage for themselves and their children could choose to take the tax credit as a “refundable tax credit” (cash income) to use at their discretion.⁵⁰

Look-Back, Crowd-Out, Buying the Base

Look-back and waiting periods are typically imposed in an effort to avoid crowd-out. In other words, tax credits would be available only to firms who had not offered employee coverage for a specific period of time or to individuals who had not had insurance coverage for a specific period of time. These policies presumably would minimize crowd-out because individuals or firms could not drop their current coverage to take up the subsidies.

However, authors of some proposals argue that making the tax credit unavailable to individuals who had already purchased health insurance is patently unfair, essentially punishing people who have acted responsibly.⁵¹

Most of the tax incentive proposals expect crowd-out to occur, but argue that some crowd-out would be inevitable if high take-up is a top priority. Some low-paid workers whose employers already provide health insurance might switch to the tax credit plan in order to get a larger tax deduction (see below), which could cause some employer-based plans to unravel. However, crowd-out should be minimized by the fact that employer-

⁴⁸ Curtis *et al.*, 2000.

⁴⁹ Merlis, 2000.

⁵⁰ Etheredge, 2001.

⁵¹ Zelenak, 2000.

based health insurance typically costs 30% less than non-group plans (so workers may increase their costs if they left a plan sponsored by employers).

Crowd-out could occur on an individual or employer basis, dependent on the target of the tax incentive. Simulations using a variety of data have resulted in a wide range of estimates regarding the prevalence of crowd-out, suggesting that it is very difficult to accurately identify crowd-out due to macroeconomic, geographic, and longitudinal factors.⁵²

Crowd-out also could potentially occur at the state level, if states encourage Medicaid patients to switch to a federal health insurance tax credit plan in order to reduce the state's Medicaid contribution. However, short of imposing a federal mandate that states must maintain their pre-tax credit levels of Medicaid spending, there is no simple way to design a tax credit proposal to prevent state-level crowd-out.⁵³

Another issue related to crowd-out is what is referred to as "buying the base"; that is, the tax credit would be available to individuals who would have purchased non-group health insurance anyway.⁵⁴ However, exclusion of the individuals from using the tax credit raises issues of fairness, most notably because everyone that currently holds health insurance receives a federal subsidy, whether due to enrollment in public programs aimed at low-income individuals, or due to tax laws that provide incentives for employers to offer coverage to workers, except those who purchase non-group coverage. "Buying the base" could be viewed as extending subsidies to those who have not yet received them.⁵⁵

Other Factors Related to Take-up of Subsidies

Economists and policy analysts make many assumptions in modeling take-up rates and costs of coverage. Some of these assumptions deal with purchase decisions or behavioral economics, particularly related to the degree to which individuals/families are "risk averse" and the relation of risk aversion to the perceived value of insurance. Risk aversion gives individuals and families incentive to purchase insurance to avoid the uncertainty of large medical bills. Risk aversion may be explained by the psychological framework of Maslow's hierarchy, suggesting that families are not risk averse until they have sufficient income to meet their basic needs (food, shelter, etc.). Low-income families also face disincentives toward the purchase of private health insurance, such as represented by Medicaid and other public programs that provide substitutes for private health insurance.

To examine the impact of incentives, data from the 1997 National Medical Care Expenditure Survey was analyzed to examine families' demand for private health insurance, with a particular emphasis on lower income families. The simulation modeled demand for private health insurance as a function of income, price, substitutes for health

⁵² Swartz, 1996. For a summary of literature pertaining to crowd-out, see the report on the State Planning Grant website (www.ins.state.il.us/spg).

⁵³ Zelenak, 2000.

⁵⁴ Zelenak estimated that approximately 8.1 million who already have non-group insurance would take up the tax credit.

⁵⁵ Ibid.

insurance, and personal, employment, and regional characteristics; the model yielded the predicted probability of purchasing private health insurance as well as income effects by income level. Results indicated that it is the combination of income, price, and substitutes for private health insurance that impact families' decision to purchase private health insurance. When all faced a fair price, low-income families were unlikely to purchase insurance, due to Medicaid and other disincentives. An increase in price, or availability of substitutes, decreased the quantity of insurance purchased.⁵⁶

Many empirical examinations assume full participation, that is, that individuals will choose to enroll in subsidized insurance if it is available to them. However, it is clear that some individuals will not participate in subsidized purchase of insurance, even if it entails no cost at all.⁵⁷ Estimates of the demand for employer-sponsored health insurance coverage by low-income workers suggest that reductions in premiums (as represented by subsidies) would increase coverage rates, but with only modest success.⁵⁸

Data from a survey of employees of small businesses was used to estimate the probability of participation in employer-based insurance. The estimated probability of participation was higher in firms with relatively high total premiums (employer and employee contributions combined), which may be indicative of quality of the offered plan. However, likelihood of participation was negatively related to the amount of employee contribution; the effect of price was greater at lower employee income, suggesting that even a minimal premium discouraged low-income workers from participating. Further, estimates revealed that if insurance was perceived by all workers to be free, participation rates for single workers would be 93%, compared to 82% if the premium costs were perceived to be 50% of the average premium (in other words, if workers received a 50% subsidy). Estimated employer and employee participation, based on the amount of the subsidy, suggested minor increases in the percentage of participation as subsidies increase from zero to 100%. Even at full subsidization, however, approximately 10% of low-income workers would choose not to participate.

The choice to remain uninsured, in spite of heavily subsidized plans, is perplexing to analysts. One explanation is the availability of "safety-net" health care, and there is some evidence supporting the effect of alternate as disincentives to purchase health insurance, as noted above. Moreover, since most insurance plans require some form of cost sharing, in the form of deductibles and copayments, some individuals may choose to forego insurance in favor of care through emergency rooms or community clinics that require no out of pocket costs.⁵⁹

A survey of the nonpoor uninsured in California examined reasons that people with incomes above 200% FPL do not purchase health insurance. Although cost was a factor, it was cited by fewer than 40% of those who were eligible but declined employer-based

⁵⁶ Thomas, 1994. She concluded that, as long as a safety net of substitutes exist for the lowest income bracket, there will be a layer of "nearly low-income" that also count on these alternatives, and that subsidies may not be enough to encourage more extensive private health insurance coverage.

⁵⁷ Chernew, Frick, & McLaughlin (1997).

⁵⁸ Chernew *et al.* (1997).

⁵⁹ Chernew *et al.*, 1997; Thomas, 1994

coverage. The survey assessed attitudes toward health insurance; while 60% indicated that they worried about receiving proper medical care and about being “wiped out” financially, 57% disagreed that health insurance ranked very high on their list of spending priorities. Respondents believed that health insurance cost approximately twice as much as they were willing to pay; however, their perceptions of cost often exceeded the actual cost of insurance, suggesting that inaccurate information may be a significant factor in the lack of insurance for some individuals.⁶⁰

It is important to acknowledge that low-income people do not uniformly take advantage of other public-funded benefits, such as Medicaid or food stamps.⁶¹ An analysis of take-up rates in other programs sheds some light on improving take-up of health insurance programs. The most effective way to increase participation is through automatic enrollment or automatic receipt of benefits. For example, in one study of a company’s 401(k) plan, changing from voluntary to automatic enrollment resulted in an increase from 37% to 86% participation. Examining rates across programs indicated that those that require no “extra action” have the highest take-up rates.⁶²

Specifically, automatic enrollment (with payroll deduction) through the workplace has been advocated as a means of increasing take-up rates. Workers would be enrolled unless they decline in writing, and if they do so, their tax credits would be transferred to the state to purchase safety-net coverage. A precedent for this procedure may be found in the Medicare Supplementary Medical Insurance (Part B), which has take-up rates exceeding 90%.

Summary

Tax incentives for health insurance hold intuitive appeal to policymakers, and many versions have been proposed in the last several years. However, whether or not tax subsidies would substantially reduce the number of uninsured remains uncertain. Further, the range of proposed tax-based approaches is quite broad, ranging from deductibility of costs to refundable tax credits. Federal and state policymakers continue to look to tax policy as politically attractive vehicle, so the implications of alternative tax subsidization must be carefully assessed.

⁶⁰ Yegian, Pockell, Smith, & Murray, 2000.

⁶¹ The estimated rate of food stamp take up among those eligible is 74% (Chernew *et al.*, 1997). Over 1/4 of all uninsured adults and nearly 2/3 of uninsured children appear to be eligible for public coverage (Glied, 2000).

⁶² Remler, , Rachlin, & Glied, 2001.

Appendix: Detailed Summary of the Gruber Simulations

Gruber⁶³ used a simulation model to evaluate a number of options related to tax-based policies. He concluded that tax subsidies could significantly increase insurance coverage, but that even very generous subsidies could not cover a large proportion of the uninsured. Moreover, expenditures would be quite substantial, in terms of overall costs as well as cost per newly insured, and may not result in efficient use of federal dollars. Gruber also examined how features of various tax credit proposals are likely to affect overall cost to federal government, the number of uninsured who would gain coverage, which income groups would benefit, and how those who now have employer-based coverage would be affected.

Gruber used data from the February/March 1997 CPS, augmented with data from sources on health insurance costs in group and non-group markets. The central feature of his model is that he considered a wide variety of behavioral responses to tax subsidies, such as the extent to which (a) the uninsured would purchase health insurance if it were subsidized, (b) individuals now holding non-group insurance would take up subsidy, (c) firms would drop group coverage or reduce contributions if non-group insurance were subsidized, (d) individuals who hold group insurance would switch to non-group insurance if it were subsidized, and (e) individuals whose employers raise contributions would drop group insurance and become uninsured.

In his analyses, Gruber considered five policy options, plus some variants. The “base policy” in the analysis was similar to several actual proposed tax subsidies, consisting of a refundable tax credit for non-group insurance, with tax credits of up to \$1,000 for individuals and \$2,000 for families.⁶⁴ The tax credit would be available only for purchase of non-employer-based coverage, and so could not be used toward an employee’s share of his or her insurance premium. However, the tax credit would be available even if one’s employer offered health insurance coverage.

The second policy option was identical to the base policy except that the credit would be nonrefundable. Individuals could claim the credit only up to the level of their existing tax liability. The third policy option was a deduction for non-group insurance expenditures. Instead of a tax credit, unlimited tax deductions could be taken for costs of non-group insurance. This option parallels the way in which employer-based coverage is treated in the tax code, except that the costs of insurance also are shielded from payroll taxation.

The fourth policy option also was identical to the refundable credit base policy, but was restricted to those who were not offered employer-based insurance. Although this restriction would impose significant administrative and enforcement difficulties, the subsidies would be more precisely targeted to individuals who would otherwise be uninsured. Finally, the fifth policy option involved a refundable tax credit for any insurance expenditure. This is identical to the base policy but may be applied to any

⁶³ This section is excerpted from a study published in three separate venues: Gruber, 2000a, Gruber, 2000b, and Gruber & Levitt, 2000. Subsequent citations will simply refer to “Gruber.”

⁶⁴ Gruber estimated that these tax credit amounts would cover about 43% of premiums of typical non-group policies, and 31% of premiums for typical family coverage.

individual insurance expenditure, not just to non-group purchases; employees could apply the credit toward their share of employer-based insurance premiums.

These five policy options were examined by estimating effects such as the overall cost to the federal government, how many and what types of people become insured, and how many employers who currently offer coverage would drop it. A number of assumptions must be made about the probability of individual and employer behavioral responses to the various policy options; these assumptions exert a critical influence on how costs and coverage are modeled. For example, these analyses assume that if employers no longer need to contribute toward health insurance coverage, worker wages will rise, and so the government will receive revenue in the form of taxes in the higher wages.

The impact on the number of uninsured varied considerably across the five policy options. In the base case, 18.4 million would take up the subsidy (8.2% of the nonelderly population). Of these, 4.7 million were previous uninsured, 8.6 million were previously covered by non-group insurance, 4.7 million were previously covered by employer-sponsored insurance, and 0.4 million were previously covered by Medicaid. All in all, the number of uninsured would fall by about 4 million (9.5% of the uninsured population).

The base policy would lower the number of uninsured, but also would induce a shift from employer-based to non-group coverage. In addition, almost half of those taking up the tax credit would be already purchasing non-group insurance.⁶⁵ Thus, the net cost of this policy per newly insured would be almost \$3,300. This is a substantial figure as compared to \$1,860 for typical employment-based coverage, and \$2,100 for typical non-group coverage in the sample. Because of imperfect targeting, the government would pay about 50% more than the cost of a typical non-group policy per newly insured. Further, most of the cost of imperfect targeting would be due to take-up by those with non-group, not by dropping group coverage or switching to non-group by those with employer-based coverage.

Because there is a strong correlation between insurance status and income, Gruber examined the “distributional impacts” of the base policy (as well as the various policy options). With the base policy, the lowest income group (those below the federal poverty line, approximately 45% of the uninsured) would receive 26% of net spending. Only 1.3 million would gain coverage (1/3 of total number who would gain). Individuals with incomes between 100-200% FPL (30% of the uninsured) would receive 30% of net spending, and 1.6 million would gain coverage. Those with incomes between 200-300% FPL would receive 20% of net spending, and only 0.7 million would gain coverage. Those with incomes above 300% FPL would receive 24% of net spending, with little change in the number of uninsured (because few are uninsured at this level of income). Spending on a per person basis becomes less efficient as income level increases.

⁶⁵ Take-up that shifts coverage from employer-based to non-group insurance is typically referred to as “crowd-out,” whereas take-up that subsidizes existing non-group coverage has been referred to as “buying the base” by Zelenak (2000) and others.

So, the base policy results in the majority of spending (56%) targeted to those with incomes below 200%, with three-quarters targeted to those below 300% FPL. Spending above 300% would be very inefficient: \$3.3 billion to reduce the number of uninsured by 400,000.

The other policy options produced estimates of gains in coverage that ranged from 250,000 (tax deduction instead of a credit) to 12.4 million (credit applied to all insurance spending). These options also produced substantially different distributional impacts, as measured by the percentage of spending targeted to individuals under 200% FPL: these estimates ranged from 23% (nonrefundable credits) to 69% (limiting credit to those who have not been offered employer-based coverage).

Total costs of the five policy options also varied considerably. The base policy would cost \$13.3 billion per year (in 1999 dollars), and the remaining options ranged from \$870 million year (by using deductions rather than tax credits) to \$62.2 billion per year (by allowing the subsidy to be used for any insurance expenditure, including employer-based premiums).

The efficiency of each policy option was expressed in terms of the cost per newly insured, or the total cost divided by the number of newly insured individuals. These estimates ranged from \$2,239 (by offering a subsidy amount that is half of the base plan) to \$5,000 (by extending the subsidy to any insurance expenditure). The newly insured cost was \$3,300 in the base plan.

Gruber considered several alternatives to show how effects of tax policy would change as the structure of the program is altered. First, making the credit nonrefundable would greatly lower costs and simplify administration, but would severely limit the benefits of the subsidy for uninsured people. More than 60% of the uninsured have a tax liability of less than \$1,000 (the amount of the base tax credit). Costs would fall to almost half of the cost of the refundable base-policy credit, but impact on the number of uninsured would fall even more: fewer than 2 million would gain coverage (4.3% of uninsured). So, the cost per newly insured (\$3,827) would be higher than with a refundable credit (\$3,296), because such a high share of dollars would go to cover individuals who previously had non-group or employment-based coverage. Moreover, the distributional consequences were much less attractive: only 23% of spending would go those with incomes below 200% FPL. There are a number of political and administrative arguments against refundability, such as whether net tax refunds are hidden forms of “welfare” payments. But, Gruber argues, the results speak clearly – refundability is critical for appropriate targeting of tax incentives to low-income uninsured.

Second, using a deduction rather than a tax credit would reduce costs, but deductions lead to problems in reaching the uninsured that are similar to those caused by refundability. Of the half of uninsured who do pay taxes, 90% are in the 15% tax bracket, so a subsidy in form of a deduction would be worth relatively little. Costs would be dramatically lower than the alternatives (only \$870 million per year), but the impact on coverage would be much more modest (only 250,000 would gain coverage). Using deductions also

would produce much worse distributional characteristics: less than 30% of spending would benefit those with incomes below 200%.

Third, limiting credit to those not offered employment-based coverage would better target the intended population, by limiting the refundable tax credit to those who are not eligible for employment-based insurance. There are difficult administrative issues with implementing and enforcing this option,⁶⁶ but it provides a mechanism for better targeting subsidies to the currently uninsured. The total cost would be much lower than the base policy (\$6.2 billion per year), but the number of newly insured would fall as well (to 2.1 million). This option is more distributionally attractive than the base policy: more than 2/3 of benefits go to individuals with incomes below 200% FPL. However, this must be balanced against the costs and difficulties of enforcing such a restriction.

Fourth, expanding the subsidy to apply to all insurance spending (not just purchase of non-group insurance) would greatly increase the cost given that more than 70% of individuals with employer-based insurance pay some or all of their premiums, which would now be paid by the government. On the other hand, almost 40% of the uninsured are offered group health insurance, and a large subsidy would make it free, with dramatic impact. The cost, however, would be substantial (\$62.2 billion per year), but the impact would be equally dramatic (more than 12.4 million gaining coverage). Expanding the subsidy in this manner would have a very broad reach – more than 127 million taking it up, predominantly employment-based coverage, who would take up to pay their share of premium. This option is less distributionally attractive than refundable credit – only 36.5% below 200%, but spends higher share at bottom of income than nonrefundable or deduction.

Finally, Gruber examined changing the scale of the subsidy, by considering less or more generous subsidies (than \$1,000/\$2,000 of base). Smaller credits cover fewer people, but do so in a more targeted way. If the credit were halved to \$500/\$1,000, costs would be 30% of the base policy, and the reduction in the uninsured would be almost half as large as in the base policy. In contrast, doubling the credit to \$2,000/\$4,000 would result in triple the costs, and a doubling of the number of newly insured. The smaller credit covers only 2.1 million newly insured, whereas the larger credit covers more than 7.7 million. The smaller credit would target spending more directly to the poor: more than 60% to incomes below 200% (vs. less than 1/2 of larger). So, there is a clear trade-off as the generosity of tax credit is changed: Modest credits cannot produce very large reductions in the number of uninsured, but the newly insured tend to be those with the lowest incomes. Very large tax credits can induce big changes in the uninsured population, but only at very steep costs per newly insured.

A final issue concerns easing liquidity constraints. A key issue in implementing tax credits is the mismatch between the flow of tax subsidies and the flow of insurance premium payments. Individuals may face liquidity problems in using tax credits during a given year, but not receiving the funds until the following spring. If the timing mismatch were solved, take-up rates could be increased. A variety of solutions have been

⁶⁶ Meyer, Silow-Carroll & Wicks, 1999

proposed, including paying tax credits directly to insurers,⁶⁷ but the track record with the Earned Income Tax Credit (EITC) suggests caution in assuming this problem can be easily overcome. Although the EITC can be claimed throughout the year, 99% do so as a lump sum the next spring. Gruber estimated the effects of easing liquidity constraints, which would increase costs by \$1.4 billion and insure 1.4 million more, for a total of 5.5 million newly insured.

Gruber noted four clear conclusions. First, it is difficult to design a tax policy that insures a large number of newly insured persons at a modest cost per person. The base policy he evaluated was more generous than many proposals under consideration, yet it still subsidizes less than half of the cost of a typical non-group health insurance plan. Raising the value of the tax credit would insure more people but raise the average cost per newly insured person.

Second, there were clearly more and less efficient ways to cover a given number of uninsured people. Nonrefundable credits would be much more expensive per newly insured and would cover fewer of the uninsured. Policies that match the timing of tax subsidies with the timing of insurance payments could improve the scope and efficiency of tax policy.

Third, different approaches to tax subsidies also vary in how effective they are at targeting resources to those with the lowest incomes. For example, 56% would be covered with refundable tax credits, versus 30% with allowing deductions for non-group insurance premiums. Providing nonrefundable tax credits would result in even lower proportions of newly insured.

Fourth, tax-based subsidies would likely lead to reductions in the number of people with employment-based insurance, particularly the more generous subsidies. Gruber estimated that 5.4 million fewer people would have employment-based insurance, under the base policy case; most of these (3.6 million) would be switching from employment-based coverage to non-group health insurance because the tax credits would make the latter more attractive. The remainder (1.8 mill), however, would be dropped from their firms' insurance or become uninsured when their employers increased the employees' share of the insurance premium. Policies that mitigate firms' dropping coverage or employees switching to non-group tend to cost more in total and also per newly covered person.

Gruber also discussed the potential impact of insurance market reforms. For example, if there are advantages to pooled purchasing arrangements of having individuals get their health insurance through the workplace, then there is a potential concern with policies that are targeted only to non-group coverage. His analysis assumed that insurance policies in the individual market are universally available, but most states allow exclusions based on health, which clearly will reduce take up rates. They conclude that the net impact of insurance market reforms in the context of tax subsidies is uncertain; costs could increase for the most healthy and decrease for the least healthy. On the other

⁶⁷ Etheredge, 1999.

hand, doubling the size of the non-group market (as estimated in the base policy) could greatly improve the functioning of the market, both in terms of administrative efficiency and adverse selection. Non-group plans might design policies targeted specifically to the available level of tax credits, further increasing take-up from what was modeled. Finally, delinking insurance from the workplace could improve functioning of labor market by reducing insurance-induced immobility across jobs (job lock).

His conclusion is that tax policy shows promise as a means of providing health insurance to some of the currently uninsured, but covering substantial numbers will require very large expenditures, both overall and per newly insured. Even the most effective tax policy would cost \$40 billion per year and cover only 30% of the uninsured. So, tax policy will be most useful as one part of an overall strategy to address uninsurance, rather than as a solution in and of itself.

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